

STAFF REPORT

CEASE AND DESIST ORDER FOR COUNTY OF FRESNO AND RIVER RANCH, L.L.C. MENDOTA SOLID WASTE DISPOSAL SITE FRESNO COUNTY

The County of Fresno maintains an inactive municipal solid waste disposal site (hereafter Mendota Landfill) on land covering two parcels. One parcel is owned by the County of Fresno, with a smaller parcel owned by River Ranch, L.L.C. (River Ranch), a California limited liability company. The County of Fresno and River Ranch are hereafter jointly referred to as Discharger. The landfill is about 1.5 miles northeast of the City of Mendota, in Section 29, T13S, R15E, MDB&M. The 22-acre facility consists of one existing unlined waste management unit (Unit) covering approximately 21 acres. The facility is regulated under Waste Discharge Requirements, Order No. R5-2002-0199, as a Class III waste disposal site that had received municipal and inert solid wastes in accordance with regulations that were in effect at the time of discharge.

The Discharger is in violation of Order No. R5-2002-0199 for failure to complete clean-closure activities at the Mendota Landfill. Clean-closure of the landfill is the Discharger's chosen closure plan for the landfill. In addition, the landfill poses a continued threat to groundwater and surface water quality.

Staff recommends that the Central Valley Water Board adopt the proposed Cease and Desist Order that requires the Discharger to complete clean-closure activities in compliance with Order No. R5-2002-0199.

COMPLIANCE HISTORY

The Mendota Landfill was operated by the Discharger from November of 1969 to April of 1981, when the facility ceased accepting waste. The facility was then converted to a transfer station that operated until March of 1983 and is now inactive.

The Central Valley Water Board, on 23 November 1970, adopted Resolution No. 71-144, which prescribed requirements for the operation of the Mendota Landfill.

The State of California promulgated regulations for closure of landfills and other waste management units under Title 23, California Code Regulations, Section 2510 et seq. (Subchapter 15) on 27 November 1984. Section 2510(d) of Subchapter 15 states: "Waste management units which are operating, or have received all permits necessary for construction and operation, on or before the effective date of this subchapter [27 November 1984] shall be designated as existing waste management units. . . . Existing waste management units shall be closed and maintained after closure according to Article 8 of this subchapter." As such, the Mendota Landfill was classified as an "existing" waste management unit that was subject to the closure and postclosure regulations under Subchapter 15 at the time of its promulgation. These closure/postclosure regulations were subsequently transliterated into Title 27 on 18 July 1997.

In 1987, the Discharger requested approval for use of dredged San Joaquin River sediments as final cover, for which approval was granted by Central Valley Water Board staff on 19 June 1987. However,

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the Discharger did not apply this material. The wastes are currently covered with soil that is variable in thickness and averages approximately 0.5 feet thick.

On 22 November 1991, the Central Valley Water Board issued Waste Discharge Requirements, Order No. 91-225, which required the Discharger to submit a time schedule for implementing and completing closure of the Mendota Landfill by 31 December 1991. However, the Discharger did not submit the required time schedule.

On 1 December 2000, Central Valley Water Board staff issued draft waste discharge requirements for the Mendota Landfill, which required construction of a Title 27 prescriptive final cover system by 31 December 2002. On 6 February 2001, the Discharger requested delaying adoption of the draft order, pending direction from the Fresno County Board of Supervisors. The Fresno County Board of Supervisors subsequently directed County staff to pursue clean-closure of the landfill.

The Discharger proposed clean-closure of the Mendota Landfill in a letter dated 26 September 2001. The Discharger subsequently proposed a timeline to complete clean-closure of the landfill and for the submission of a Final Closure Report in a letter dated 28 February 2002. The Discharger's 28 February 2002 letter stated that the proposed timeline for completing clean-closure was based on the projected significant costs for completion of the project and the time needed to develop funding. The proposed timeline was incorporated into revised waste discharge requirements (see below).

On 18 October 2002, the Central Valley Water Board adopted Waste Discharge Requirements, Order No. R5-2002-0199 for the Mendota Landfill. The Order was written to reflect the clean-closure plans proposed by the Discharger. Clean-Closure Specification C.1. and Provision F.12.e. of the Order require that the Discharger submit a clean-closure plan meeting the requirements of §21090(f) of Title 27, California Code of Regulations, §20005, et seq. (Title 27) for review and approval by the Executive Officer, by 31 December 2003. Clean-Closure Specification C.2. and Provision F.12.f. of the Order require the Discharger to complete Clean-Closure in accordance with §21090(f) of Title 27 and the approved clean-closure plan, by 30 October 2005. Clean-Closure Specification C.3. and Provision F.12.g. of the Order require the Discharger to submit a final closure report demonstrating that clean-closure was completed in accordance with the approved clean-closure plan and Title 27, by 30 December 2005.

In a meeting held in the Central Valley Water Board office on 18 December 2003, the County requested an extension of time for submission of the clean-closure plan to 1 May 2004. Central Valley Water Board staff indicated at the meeting that it did not have the authority to revise times schedule dates in the adopted Order, and asked the County to provide adequate justification for the requested extension of time is provided. The County subsequently sent a letter dated 23 December 2003, indicating that extension of time for submission of the clean-closure plan to 1 May 2004 was requested due to the significant time required for a public entity to complete a consultant selection and competitive bid process. The County's 23 December 2003 letter also stated that this delay was not anticipated to impact completion of clean closure activities by 30 October 2005 and submission of the final clean-closure report by 30 December 2005, as required by the Order.

Central Valley Water Board staff received two reports entitled *Clean-closure Plan, Mendota Disposal Site*, dated 29 April 2004, and *90% Plans and Specifications for the Clean-Closure Project, Mendota Disposal Site*, dated 3 May 2004, prepared and submitted by Golder Associates on behalf of the Discharger. The submittals provided a proposed Clean-Closure Plan for the facility, pursuant to Clean-Closure Specification C.1. and Provision F.12.e. of Order No. R5-2002-0199. The Clean-Closure Plan indicated that, because of budget constraints, the County planned to conduct clean-closure of the facility in two phases. The first phase was to be completed in 2004, while the second phase was planned for 2005. By letter of 18 May 2004, staff reviewed the Clean-Closure Plan and indicated that the Plan needed to be revised to incorporate specific soil confirmation sampling test methods, and requested that the Discharger submit a revision to the Plan by 25 June 2004. Staff subsequently received a letter dated 23 June 2004, submitted by the County, providing a response to the 18 May 2004 review of the Plan. By letter of 8 October 2004, staff approved the proposed Clean-Closure Plan, as fulfillment of Clean-Closure Specification C.1. and Provision F.12.e. of Order No. R5-2002-0199.

Central Valley Water Board staff received a letter from the Discharger dated 13 August 2004 requesting a time extension of up to four years for completion of the two-phase Clean-Closure Plan. The Discharger's 13 August 2004 letter indicated that the San Joaquin Valley Air Pollution Control District is requiring the County to perform the clean-closure fieldwork in at least three phases, not to be performed during the hottest months of the year, due to the estimated nitrogen oxide emissions from the project. In addition to these imposed limitations, the Fresno County Board of Supervisors had withdrawn funding for the closure. The Discharger therefore requested that Central Valley Water Board staff grant an extension of time for completing the clean-closure project to 31 October 2009, and 31 December 2009 for submitting the closure report (a four-year extension to Order No. R5-2002-0199). By letter of 8 October 2004, staff informed the Discharger that staff cannot grant an extension of time for deadlines contained in adopted waste discharge requirements.

GROUNDWATER DEGRADATION

The Mendota Landfill is about one mile southeast of the Mendota Dam, which creates a pool along the Fresno Slough. The landfill is immediately south and west of this pool. Surface drainage from the Mendota Landfill is to the north and east towards the Fresno Slough. In addition, the City of Mendota owns and operates a wastewater treatment facility located approximately 1,500 feet west of the landfill. A series of associated wastewater disposal ponds are located to the west, within 1,000 feet of the landfill.

The first encountered groundwater is about five to twenty feet below the native ground surface. Groundwater elevations range from about 150 feet MSL to 130 feet MSL. The groundwater is unconfined. The depth to groundwater fluctuates seasonally as much as fifteen feet. The direction of groundwater flow is toward the southwest, and varies seasonally and periodically flows toward the south. Local factors affecting groundwater flow beneath the site are principally groundwater pumpage, and recharge from the Fresno Slough, the Mendota Pool, and the wastewater disposal ponds. The average groundwater gradient is approximately 0.004 feet per foot. The average groundwater velocity is approximately one foot per year.

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Groundwater detection monitoring has sporadically detected non-naturally occurring waste constituents downgradient of the facility at concentrations below any applicable Primary Maximum Contaminant Levels (MCLs), including: dichlorodifluoromethane; toluene; vinyl chloride; benzene; chlorobenzene; 1,4-dichlorobenzene; and methylene chloride. The infrequent nature of the detections of non-naturally occurring waste constituents is problematic for determining whether groundwater has been degraded by non-naturally occurring waste constituents released from the facility.

Groundwater detection monitoring has also detected statistical evidence for a release of inorganic waste constituents at levels slightly to moderately above their respective tolerance limits, including: alkalinity; aluminum; bicarbonate; iron; and sodium. However, the close proximity of the landfill to the Mendota Pool, the Fresno Slough, and the wastewater disposal ponds adds a degree of uncertainty as to establishing background concentrations of waste constituents in groundwater. The inconclusive nature of these detections of naturally occurring waste constituents is problematic for determining whether groundwater has been degraded by naturally occurring waste constituents released from the landfill.

A review of the case file indicates that groundwater has historically encroached into and receded out of the unlined waste management unit, creating the potential for the generation of leachate and a release of waste constituents into groundwater. The potential exists for continued leachate generation via groundwater encroachment into the landfill wastes. The Discharger has not demonstrated that a reliable method for maintaining the minimum five-foot separation between groundwater and the base of wastes, as required by Title 27. Therefore, the preferable method of landfill closure is removal of the wastes by clean-closure.

The waste management facility is within a 100-year flood plain based on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, Community-Panel Number 065029 0820 B.

Based on the factors discussed above, it becomes clear that the aerial groundwater is influenced by a number of different factors that affect groundwater quality that include the Fresno Slough, the Mendota Pool, and the Mendota wastewater disposal ponds. The degree of influence of each of these contributors varies over time, making it difficult to accurately assess the degree of degradation of groundwater caused by the landfill. It is clear, however, that the landfill is degrading groundwater. Although detections are sporadic, volatile organic compounds are being released to groundwater. The detections have continued sporadically over a significant period of time and repeatedly include the same seven waste constituents. It is also clear that naturally occurring waste constituents are degrading groundwater. The degree of groundwater degradation, however, is uncertain due to the multiple influences on aerial groundwater quality mentioned above.

Since the base of the unlined landfill was excavated below the highest recorded level of groundwater, the wastes have been and will periodically in the future be inundated by groundwater. This will provide a continuing supply of fresh leachate to groundwater, further degrading the groundwater. In addition, there is no feasible means to prevent the groundwater from inundating the wastes in the future due to the local conditions.

Therefore, the only feasible means to protect groundwater from further degradation is to clean close the landfill, as stipulated in Order No. R5-2002-0199.

PROPOSED CEASE AND DESIST ORDER

Section 21110(b) of Title 27 states that closure activities shall adhere to the time frames specified in the approved closure plan. The proposed Clean-Closure Plan, approved on 8 October 2004, specified time frames including completion of the first phase in 2004 and completion of the second phase in 2005. These time frames were accepted on the basis that all clean-closure activities could be completed within the constraints of the time schedule required by Order No. R5-2002-0199 (see below).

Clean-Closure Specification C.2. and Provision F.12.f. of Order No. R5-2002-0199 require the Discharger to complete clean-closure activities at the Mendota Landfill in accordance with the approved clean-closure plan by 30 October 2005. The Discharger has neither implemented nor completed clean-closure activities to date.

Clean-Closure Specification C.3. and Provision F.12.g. of Order No. R5-2002-0199 require the Discharger to submit a final closure report for Executive Officer review and approval, demonstrating that clean-closure was completed in accordance with the approved clean-closure plan and Title 27, by 30 December 2005. The Discharger has not submitted the final closure report to date.

As a result of the events and activities described in this Order, the Central Valley Water Board finds that the Discharger is in violation of Waste Discharge Requirements, Order No. R5-2002-0199, and of Title 27, California Code of Regulations, §20005, et seq.

In a letter dated 13 August 2004, the Discharger requested a time extension of up to four years for completion of clean-closure activities. The Discharger's 13 August 2004 letter states that the San Joaquin Valley Air Pollution Control District is requiring the County to perform the clean-closure fieldwork in at least three phases, not to be performed during the hottest months of the year, due to the estimated nitrogen oxide emissions from the project. In addition to these imposed limitations, the Fresno County Board of Supervisors had withdrawn funding for the closure. The Discharger therefore requested that Central Valley Water Board staff grant an extension of time for completing the clean-closure project to 31 October 2009, and 31 December 2009 for submitting the closure report (a four-year extension to Order No. R5-2002-0199). By letter of 8 October 2004, staff informed the Discharger that staff cannot grant an extension of time for deadlines contained in adopted waste discharge requirements.

Staff approved a proposed Clean-Closure Plan by letter of 8 October 2004, as fulfillment of Clean-Closure Specification C.1. and Provision F.12.e. of Order No. R5-2002-0199. Clean-closure of the Mendota Landfill is necessary for the following reasons: 1) groundwater has historically encroached into and receded out of the unlined waste management unit, creating the potential for the generation of leachate and a release of waste constituents into groundwater; 2) groundwater detection monitoring wells have sporadically detected non-naturally occurring waste constituents downgradient of the landfill, which constitutes evidence of a potential release of waste constituents into groundwater; and 3) the waste management facility is within a 100-year flood plain. For these reasons, the landfill would pose a continued potential threat to surface water and groundwater quality if left in place, and hence a continued potential threat of violation of Waste Discharge Requirements, Order No. R5-2002-0199.

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SUMMARY AND RECOMMENDATION

Staff recommends that the Central Valley Water Board adopt the Cease and Desist Order as proposed for the County of Fresno and River Ranch, L.L.C.